APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

selenium is determined polarographically.

ASSOCIATION: Kazakhskiy gosudarstvenny universitet (Kazak State University)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

S/032/63/029/004/003/016
A004/A127

AUTHOR: Malakhov, V.V.

TITLE: Determining selenium in elementary tellurium

PERIODICAL: Zavodskaya laboratoriya, no. 4, 1963, 419

TEXT: To avoid selenium losses of up to 20% in determining Se in the T1 and T2 tellurium grades, the author suggests a method by which the test sample is decomposed by concentrated sulfuric acid with subsequent nitric acid addition. 10 ml H_2SO_4 are added to a weighed portion of 0.5 g tellurium, the mixture is carefully stirred and 1 - 2 ml HNO_3 added. Tellurium partly dissolves and forms the red-violet $TeSO_3$ solution, while the nitric acid oxidizes it nearly immediately into TeO_2. For a complete decomposition, the content of the flask is heated, cooled down and twice evaporated. Then 75 ml water, 25 ml HCL (1.19), 1 - 2 g hydrochloride of hydroxylamine and approx. 300 mg asbestos are added, the solution boiled for 1 - 2 minutes until the selenium is reduced. After settling, Se is filtered through an asbestos pad and 3 - 4 times washed in hot 1% hydrochloric acid solution. The

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SAVICHEV, Ye.I.; MALAKHOV, V.V.; GOLOVIN, Ye.I.

Obtaining thallium, selenium, and iodine from roasted stupp of a mercury condensing plant. TSvet. met. 35 no.1:72-74 Ja '62. (MIRA 16:7)

(Mercury industry--By-products)

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Se content was calculated on the basis of a calibration curve or by comparison with standard solutions. The relative error was 3%. With low Se contents, the individual analyses may diverge up to 10-15% (relative). There are 3 figures, 1 table, and 1 Soviet reference.

ASSOCIATION: Leninogorskiy polimetallicheskiy kombinat (Leninogorsk Combine for Complex Metals)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

S/032/62/028/004/003/026
B101/B144

AUTHOR: Malakhov, V. V.

TITLE: Polarographic determination of selenium as selenium sulfate

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 4, 1962, 408-411

TEXT: The polarographic determination of Se as Na_2SeSO_3 was studied with the use of various backgrounds ($NaNO_3$, KCl, KCNS, CH_3COONa, KOH), and 1 M NH_4Cl + 1 M NH_4OH, $E_{1/2}$ = 0.90 v was found to be the best background. A well measurable peak is obtained, the height of which is directly proportional to the Na_2SeSO_3 content in the concentration range 0.02 - 10 mg/liter. 1.0 γ of Se can still be determined in 50 ml of solution. The analytical method developed is used for determining Se in polymetallic concentrates containing 0.00005 to 5-6% Se. For a selenium content of less than 10 mg/liter, a КАП-225у (KAP-225u) a-c electronic polarograph was used, and for higher Se contents, a visual ПВ-5 (PV-5) polarograph. The

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sulphite. The selenium is filtered off and the thallium is precipitated as thallium bichromate which is again dissolved in a mixture of sodium sulphite and sulphuric acid. The thallium is extracted by a cementation process on zinc plates. The solution filtered from the thallium hydroxide is neutralized, made acid with sulphuric acid and selenium is precipitated at 60 to 70°C with sulphur dioxide. The selenium is washed with hydrochloric acid (40% by volume), then with water, and dried at 105°C. The purity is 99.15%. There are 1 figure, 4 tables and 4 Soviet bloc references.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

S/136/62/000/001/002/005
E021/E435

AUTHORS: Savichev, Ye.I., Malakhov, V.V., Golovin, Ye.I.

TITLE: Extraction of thallium, selenium and iodine from the roasted stupp of mercury apparatus

PERIODICAL: Tsvetnyye metally, no.1, 1962, 72-74

TEXT: The roasted stupp from mercury distillation contains 2 to 2.5% thallium, 5 to 8% selenium and 2 to 4.5% iodine. Work on their extraction has been carried out using a sulphuric acid leaching process in the presence of an oxidizing agent - pyrolusite. The amount of acid necessary is calculated from laboratory tests on the stupp. The operation results in extraction of 97.4% of the thallium and 95.4% selenium into the solution and 96.3% of the iodine distils off with water vapour and is collected. The separation of selenium and thallium is carried out by the following method. The sulphuric acid solution (containing 1.47 g/l Tl, 4.5 g/l Se and 0.18 g/l I) is neutralized with sodium hydroxide to a pH of 7, and then excess NaOH is added to give complete precipitation of thallium hydroxide. 97.2% Extraction of thallium can be obtained with 33.6 g/l NaOH. The thallium hydroxide is treated with sulphuric acid and sodium

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

S/137/62/000/007/013/072
A052/A101

Processing the burnt stupp of a mercury installation

means of Zn powder is carried out at 50 - 60°C during 12 hours. The cement product contains up to 85% Se. The extraction of Se at cementation is > 90%. Tl remaining in the cake after alkali lixiviation of the stupp is extracted by processing the cake with H_2SO_4. The extraction of Tl into the solution is ~85%.

G. Svodtseva

[Abstracter's note: Complete translation]

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

S/137/62/000/007/013/072
A052/A101

AUTHORS: Glotko, Ye. D., Golovin, Ye. I., Malakhov, V. V., Savichev, Ye. I.

TITLE: Processing the burnt stupp of a mercury installation

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1962, 32, abstract 70217 ("Tr. Altaysk. gornometallurg. n.-i. in-ta", no. 11, 1961, 164 - 167)

TEXT: The process of lixiviating the stupp by means of NaOH solutions was studied. The best results were achieved when the stupp, on heating to 90 - 96°C and stirring, was lixiviated during 3 hours by means of 5% NaOH solution at a ratio solid phase : liquid phase = 1 : 7. Thereby solutions were obtained containing 6 g/l I_2 and 8 g/l Se. The following optimum conditions of precipitating I_2 and Se from alkali solutions were established: neutralization and acidification of solution with H_2SO_4 to 60 g/l, addition of $K_2Cr_2O_7$ in a fourfold excess in relation to the I_2 content in the acid solution, filtering off the precipitated I_2 and Se. The precipitation is carried out at 15 - 20°C on stirring. The extraction of I_2 from the solution into concentrate makes up 90 - 97%. The concentrate contains up to 40% I_2, 5 - 40% Se and 1 - 15% $PbSO_4$. The precipitation of Se by

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MALAKHOV, V.V.

Equations for scattering amplitudes at low energies. Zhur.eksp.i teor.fiz. 41 no.3:762-764 S '61. (MIRA 14:10)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

(Scattering (Physics))

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

GLOTKO, Ye.D.; GOLOVIN, Ye.I.; MALAKHOV, V.V.; SAVICHEV, Ye.I.

Photocolorimetry of iodine in Lead Industry dusts and their products. Trudy Alt.GMNII AN Kazakh.SSR 11:162-163 '61. (MIRA 14:8)

(Colorimetry) (Iodine--Analysis)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

Application of the Dispersion Technique for Studying the Simplest Green Functions in Mesodynamics

S/056/60/038/006/029/049/XX
B006/B070

$F(\mu^2) = F_1(m^2, \mu^2) + mF_2(m^2, \mu^2) = g$ (g - renormalized coupling constant) and the requirement that, if the solution is expanded in a power series of the interaction constant (weak coupling), the expansion must coincide with the series obtained by perturbation theory. The asymptotic behavior of $F_i(p, p')$ with respect to p^2 and q^2 is determined for the case of weak coupling. The results obtained are briefly discussed in Section 4. Some mathematical supplements are given in Section 5. N. N. Bogolyubov, A. A. Logunov, and D. V. Shirkov are mentioned. There are 16 references: 8 Soviet, 5 US, and 3 Italian.

SUBMITTED: January 3, 1960

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

parameter, even in the case of weak coupling, which would allow the contribution of the many-particle Green function to be estimated. In contrast to the approximate dispersion relations in the scattering problem where the matrix element on the energy surface with free ends ($p_i^2=m_i^2$) is considered, for the study of the contribution of higher approximations in the asymptotic region of the single-particle Green functions and the vertex function it is necessary to know the analytical properties of the matrix elements with virtual ends ($p_i^2 \neq m_i^2$). Section 2 of the paper gives a derivation of approximate equations for the Green functions of the meson $\Delta(q^2)$, the nucleon $G(p)$, and the vertex function $F_i(p,p')$. The derivation is based on the analytical properties of this function and the unitarity conditions. The dispersion relations for $F_i(p,p')$ with respect to p^2 in the physical region ($p'^2=m^2$, $q^2=(p-p')^2=\mu^2$) are verified. Section 3 gives a study of the system of approximate equations which lead to the solution of Gilbert's problem. The unique solution is obtained by means of the boundary condition

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

S/056/60/038/006/029/049/XX
B006/B070

24.4500

AUTHORS: Malakhov, V. V., Rashevskaya, Ye. P., Faynberg, V. Ya.

TITLE: Application of the Dispersion Technique for Studying the Simplest Green Functions in Mesodynamics 19

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 6, pp. 1803-1813

TEXT: A study is made of an approximate set of dispersion equations for meson and nucleon Green functions, and the vertex function in pseudoscalar charge-symmetrical mesodynamics. Analogous problems in electrodynamics were studied in Refs. 1-5. The object of such a study is to clarify the asymptotic behavior of the single-particle Green functions from which conclusions can be drawn on the character of renormalization in theory, and on the relationship between the dispersion relations and the Lagrangian in quantum-field theory. An analysis of the simplest approximation of the dispersion equations shows, however, that in the asymptotic region it is not possible to have an effective expansion

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, V.V.; VASIL'YEVA, I.G.; SAVICHEV, Ye.I.; GOLOVIN, Ye.I.; GLOTKO, Ye.D.

Determination of the forms in which selenium compounds exist in the dusts and sublimates of lead production. Zav.lab. 26 no.9: 1060-1064 '60. (MIRA 13:9)

1. Leninogorskiy polimetallicheskiy kombinat.
(Selenium--Analysis) (Lead)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

20-3-27/52

The Method of Electric Conductivity in the Investigation of Powdery Metallic Catalyzers in the Liquid Phase

portional to the distance between the electrodes and decreases with an increased weighing-in of powder. Analogous precipitation curves apply in the case of each weighed-in quantity, and to each curve there belongs a "saturation resistance". Also the influence exercised by oxygen, acetylene, methyl ethyl, acethylenyl carbinol on the resistance of 0,75 g of a skeleton nickel-powder saturated with hydrogen at 20° was investigated. In all cases the removal of hydrogen from the surface of the catalyzer brought about by these substances led to an increase of its resistance. Also after shaking up the powder in air resistances of millions of Ohms are attained. The temperature dependence of the electric conductivity of skeleton nickel and platinum blackening is the dependence which is characteristic of semiconductors. There are 3 figures, and 4 Slavic references.

SUBMITTED: July 1, 1957

AVAILABLE: Library of Congress

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

Malakhov, V. V.

20-3-27/52

AUTHORS: Sokol'skiy, D. V., Member of the AN of the Kazakh SSR, Malakhov, V. V.

TITLE: The Method of Electric Conductivity in the Investigation of Powdery Metallic Catalyzers in the Liquid Phase (Metod elektroprovodnosti pri issledovanii poroshkoobraznykh metallicheskikh katalizatorov v zhidkoy faze)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 3, pp. 455 - 457 &USSR)

ABSTRACT: In this case n-heptane is used as a solvent. The experiments were also carried out in benzene, 96 % alcohol, and icy carbonic acid. When determining the electric conductivity of the powders, a catalytic "duck" was placed upon the bottom of the cell. The resistance was measured by means of a direct current bridge. The high conductivity of active nickel powder is caused by the hydrogen it contains. In freshly prepared skeleton-nickel the resistance may vary from one to several thousand Ohms. However, powder kept for several days under alcohol is unable to conduct any current. However, if the powder is saturated with hydrogen, its resistance decreases as long as the powder absorbs hydrogen. A certain low value of resistance then results, which is here described as "saturation resistance". The resistance of the skeleton nickel is directly pro-

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L 11126-66

ACCESSION NR: AP5018840

ENCLOSURE: 01

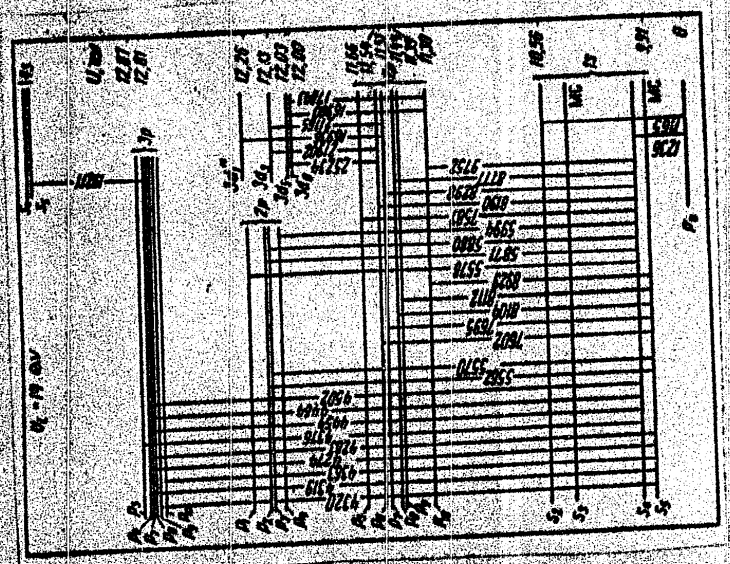

Fig. 1. Diagram of energy levels and transitions in krypton

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ACCESSION NR: AP5018840

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Fig. 1 of the Enclosure. The oscillator strengths of 13 krypton spectral lines in the visible and near infrared regions were calculated and the various results tabulated. The results indicate that the 2p and 3p levels of krypton are not excited directly, but in steps, but the experimental data are insufficient for a final conclusion. 'The authors thank Professor A. N. Tekuchev for valuable remarks.' Orig. art. has: 1 figure, 2 formulas and 6 tables.

4456

ASSOCIATION: None

SUBMITTED: 28Sep64 ENCL: 01 SUB CODE: OP

NR REF SOV: 012 OTHER: 003

Card 2/3

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L 4426-66 EWT(1)/EWT(m)/EPF(c)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5018840 UR/0368/65/003/001/0014/0019

535.373.2

AUTHORS: Malakhov, V. P.; Ostapchenko, Ye. P.

TITLE: Concerning the excitation of krypton

SOURCE: Zhurnal prikladnoy spektroskopii, v. 3, no. 1, 1965, 14-19

TOPIC TAGS: krypton, gas discharge, excitation spectrum, oscillator strength, optic transition

ABSTRACT: In view of the lack of data on the physical processes which occur in krypton discharges, the authors determine the populations of the 1s, 2p, and 3p levels of krypton. The investigations were made with a diffraction-grating spectrometer (DFS-12). The spectrum was recorded with a photomultiplier and an automatic recorder. The discharge was produced in a tube 200 mm long and 25 mm in diameter. The gas was excited with direct current. The electric parameters of the discharge were plotted with the aid of two probes. A diagram of the energy levels and transitions in krypton is shown in

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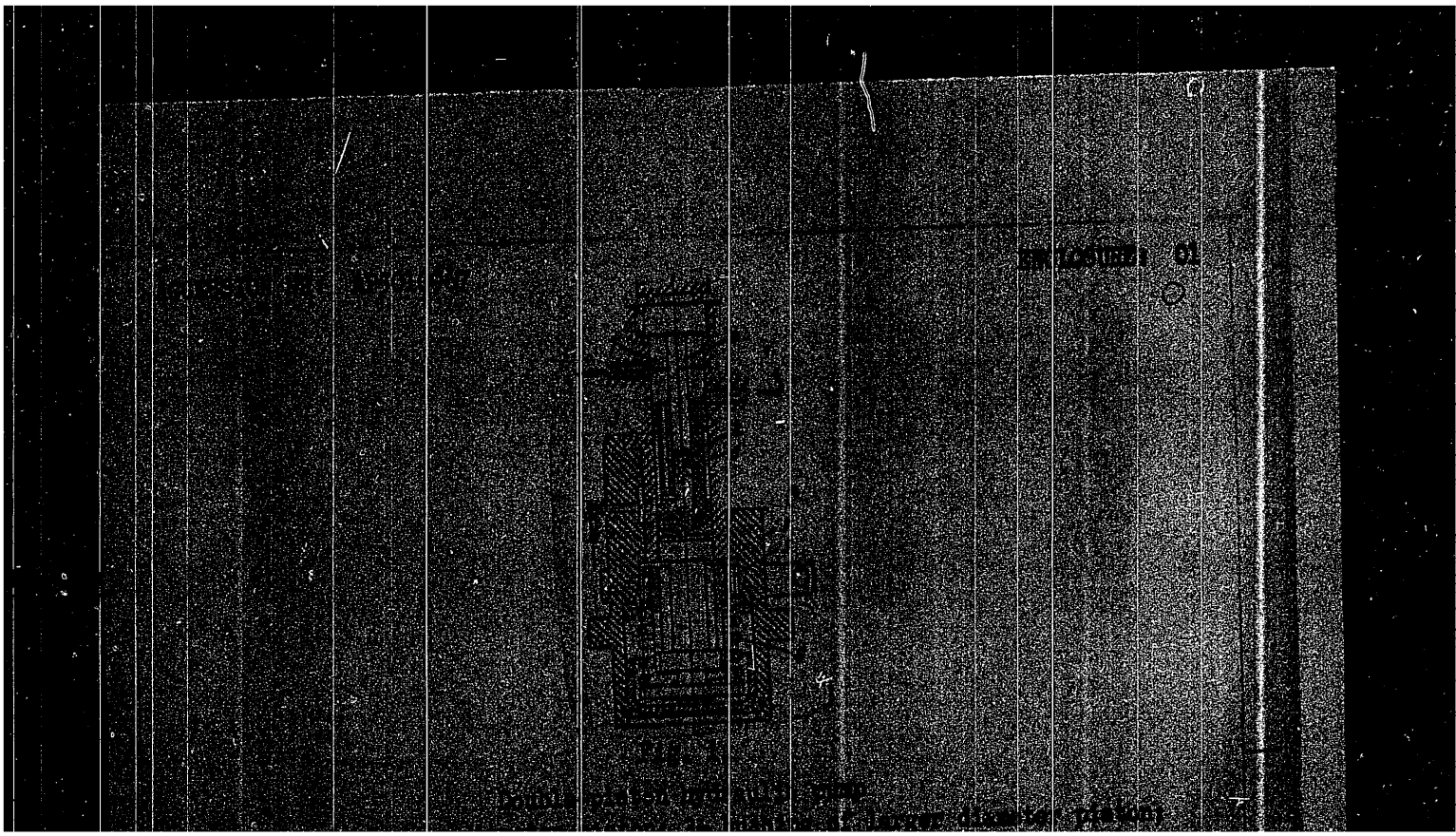

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[illegible] Class 46, No. 159945

[illegible] Khimicheskoye i neftyanoye mashinostroyeniye, no. 7, 1965, 152-153

[illegible] pump for [illegible] construction [illegible] with a [illegible] to reduce [illegible] and is placed concentrically [illegible] to simulate [illegible] chamber [illegible] and to insure [illegible] has a [illegible]

SUB CODE: [illegible]

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L 15243-66 EWT(m)/EWP(j) RM

ACC NR: AP6000943 SOURCE CODE: UR/0286/65/000/022/0028/0028

AUTHORS: Malakhov, V. I.; Palitsyn, N. P.; Piskunova, Ye. M.

ORG: none

TITLE: A method for obtaining ferrocene. Class 12, No. 176293

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 28

TOPIC TAGS: ferrocene, iron compound, organometallic compound, organoiron compound

ABSTRACT: This Author Certificate presents a method for obtaining ferrocene by reacting anhydrous ferrous chloride, diethylamine, and cyclopentadiene, and by subsequent separation of the product. To simplify the method, the process is carried out in the presence of excess diethylamine. The product is separated by steam distillation and washed with boiling distilled water. The anhydrous ferrous chloride is obtained by heating hydrated ferrous chloride in vacuum at 160C.

SUB CODE: 07/ SUBM DATE: 08Oct63

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Card 1/1 UDC: 547.419.6'172.07

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

IVANYUTA, M.M.; KOVAL'CHUK, N.R.; MALAKHOV, V.F.

Oil yield factors of the depleted pools of the Cis-Carpathian region. Nefteprom. delo no.1:6-8 '65. (MIRA 18:3)

1. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy institut.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

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MALAKHOV, V. F., STENY, YA., KOLCHIN, A. M. and PANCHENKOV, G. M.

"Die massenspektrometrische Isotopenanmalyse an Bor auf der Grundlage der Thermionem-Emmission."

Report presented at the 2nd Conf. On Stable Isotopes
East German Academy of Sciences, Inst. of Applied Physical Material
Leipzig, GDR 30 Oct - 4 Nov 1961

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, V. F.

report to be submitted for the IUPAC 21st Conference and 18th Intl. Congress of Pure and Applied Chemistry, Montreal, Canada, 2-12 August 1961

GORODISKIY, A. V., Academy of Sciences UkSSR, Kiev - "The oscillographic investigation of the electrochemical kinetics in fused salts" (Section A.3,e.2 - Session I, 11 Aug 61, afternoon)

GURVICH, L. V., Academy of Sciences USSR, Moscow - "The calculation of thermodynamic functions of gases in a wide temperature range" (Section A.3,c,(1), Session II - 8 Aug 61, afternoon)

KARGIN, V. A., Physico-Chemical Institute imeni L. Ya. Karpov, Moscow - "Vitrification phenomena in crystallin polymers" (Section B.4 - 7 Aug 61, afternoon)

KISELEV, A. V., Moscow State University imeni M. V. Lomonosov - "The influence of surface heterogeneity and adsorbate-adsorbate interaction on the adsorption properties of solid surfaces" (Joint Session, Sections A.2 and B.1 - 8 Aug 61, morning)

KONDRAT'YEV, V. N., Institute of Chemical Physics, Academy of Sciences USSR, Moscow - "The BO_2 radical" (Section A.1, Session I - 11 Aug 61, morning) (Also, Section A.1, Chairman, Session I - 8 Aug 61, morning)

KUZNETSOV, V. I., Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Academy of Sciences USSR - "A novelty in the use of organic co-precipitants for concentration of small amounts of the elements" (To be presented in Russian) (Section C.2 - 11 Aug 61, morning)

LEVRUKHINA, A. K., RAKOVSKIY, S. S., and MOSKALEVA, L. P., Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Academy of Sciences USSR - "New data on radiochemical investigations of the processes of fission and fragmentation induced by high energy protons" (Section A.4 - 8 Aug 61, afternoon)

LOVACHEV, L. A., Academy of Sciences USSR, Moscow - "Determination of rate constants of elementary processes from flame velocities as a function of temperature, pressure, and molecular transfer coefficients" (Section A.3,b,(2) - 7 Aug 61, afternoon)

MUNDIATH, S. (Probably MUNDYATH, S.) and GERASIMOV, Y. I., Moscow State University imeni M. V. Lomonosov - "Study of the thermodynamic properties of the system iron-latinum" (Section A.3,c,(3), Session II(A) - 11 Aug 61, morning)

PANCHENKOV, G. M., KOLCHIN, A. M., MALAKOV, V. F., and SHTEYN, Ya., Moscow State University imeni M. V. Lomonosov - "Emission of complex ions in solid-phase reactions" (Joint Session, Sections A.2 and B.1, 8 Aug 61, morning)

SEMENOV, N. N., Institute of Chemical Physics, Academy of Sciences USSR, Moscow - "Certain chemical reactions at reduced temperatures and related problems of energy transfer" (To be presented in Russian) (Plenary lecture - Saturday, 12 Aug 61)

SHILOV, Ye. A., Academy of Sciences UkSSR, Kiev - "The active agents and the intermediary complexes in the heterolytic reactions of halogenation of the organic compounds" (Section A.1, Session II - 11 Aug 61, morning)

SMIRNOV, M. V., Electrochemistry Institute, Sverdlovsk - "The equilibrium between the titanium subgroup metals and the salt melts" (Section B.3 - 7 Aug 61, afternoon)

TAL'ROZE, V. L., Institute of Chemical Physics, Academy of Sciences USSR - "Reactions of ions and molecules in the gas phase" (Section A.1, Session I - 9 Aug 61, afternoon)

TERENIN, Aleksandr N., Leningrad State University imeni A. A. Zhdanov - (Section A.1, Chairman, Session I - 8 Aug 61, afternoon Session) (Also on program for Section A.1, Session I - 9 Aug 61, afternoon)

TERENIN, Aleksandr N., VILESOV, F. I., KURBATOV, B. L., and DOBCHOVA, N. V., Leningrad State University imeni A. A. Zhdanov - "Mass-spectrometry and luminescence of radicals in the photodissociation and photoionization of molecules by vacuum ultra-violet radiation" (Section A.1, Session I - 9 Aug 61 - afternoon)

TONTSKIY, N. N., Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov - "On the dissociation of molecules on electron impact and the early states of radiation-chemical processes" (Section A.1, Session I - 8 Aug 61, afternoon)

YAKUSHKIN, Emanuil Ya., and KOROLEV, V. V., Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Moscow - "The plasma generator and its use for spectral analysis of alloys and rocks" (Section C.1 - 8 Aug 61, morning)

VINOGRADOV, A. P., LEVRUKHINA, A. K., and KEVDIA, L. D., Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Academy of Sciences USSR - "The study of nuclear reactions in iron meteorites under the action of high energy protons" (Section A.4 - 8 Aug 61, afternoon)

YAKOVLEV, Yu. V., and ALIMARIN, I. P., Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Academy of Sciences USSR - "The determination of trace impurities in some materials for semiconductor techniques by radio-activation analysis" (To be presented in Russian) (Section C.1 - 8 Aug 61, afternoon)

YEROFEYEV, Boris V., Institute of Physical-Organic Chemistry, Minsk - "The effect of donor and acceptor admixtures on the decomposition rate of solids" (Section A.2 - 8 Aug 61, afternoon)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

88352

Mass Spectrometric Analysis of Boron Isotopes by the Thermionic Emission Method

S/076/60/034/009/040/041XX
B020/B056

obtained by V. Shyutse, no effect of the fractioning of isotopes was found either in the analysis or after further 4 hours. The results are given in Table 3, from which it follows that the fluctuations of the isotope ratio B^{11}/B^{10} decrease with time, which is due to the improved stability of the ion current of $Na_2BO_2^+$. It is therefore recommended to make the analysis 30 minutes after switching on the necessary ion current. There are 3 tables and 4 references: 3 Soviet and 1 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: March 22, 1960

Card 3/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

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88352

Mass Spectrometric Analysis of Boron Isotopes by the Thermionic Emission Method S/076/60/034/009/040/041XX B020/B056

0.8-1.0 mm wide, and 0.05 - 0.1 mm thick bands were used. Borate, metaborate, and a borate-boroxide mixture served as emitters, the first compound being the most favorable one. The intensity of the ion current increases with the reducing properties of the band material (Pt, Ni, W, Ta). From an annealed platinum band, no $Na_2BO_2^+$ ions were emitted. The ion current emitted from the surface of annealed Ni-, W-, and Ta-bands had an intensity of the order of $6 \cdot 10^{-14}$ - $5 \cdot 10^{-19}$ a. Therefore, the attempt was made to increase the intensity of the ion current by addition of pulverulent reduction agents (Al, Mg), of which magnesium was found to be the most effective. When using a mixture of borate powder as emitter, a sufficiently intensive (of the order of 10^{-11} a), constant ion current was obtained, permitting the analysis of boron isotopes with an accuracy of 1%. The optimum working temperature was 700-750°C. The analysis results are given in Table 1. In calculation, no correction was introduced for the content of heavy oxygen isotopes. To explain the "memory" effect, analyses of specimens with highly different isotope compositions were carried out successively on one day. The results are given in Table 2. In contrast to the results

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88352

5.5310(1273, 1282, 1160)

S/076/60/034/009/040/041XX
B020/B056

AUTHORS: Kolchin, A. M., Malakhov, V. F., Panchenkov, G. M.

TITLE: Mass Spectrometric Analysis of Boron Isotopes by the Thermionic Emission Method

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 2124-2125

TEXT: Mention is made in publications that the method mentioned in the title may be used for the isotopic analysis of boron, and offers the following advantages as compared to other methods: 1) Low material consumption, 2) no "memory" effect, 3) a small number of peaks left over due to impurities, and 4) high probability that no secondary processes act upon the analysis results. For the practical use of the method mentioned in the title, the ion current, which, according to published data amounted to 10^{-13} a, had to be measured accurately by means of series mass spectrometers. To solve the problem, the intensity of the ion current must be increased to 10^{-12} a, and its stability must be improved. All measurements were made by means of the mass spectrometer MC-4 (MS-4) with a thermionic source. For heating, 20 mm long,

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SHEVCHENKO, A.T.; MALAKHOV, V.B.; YEFIMOV, V.A., doktor tekhn. nauk

Forming of steel under slag of exothermal mixtures with graphite. Met. i gornorud. prom. no.4:74-76 Jl-Ag '65. (MIRA 18:10)

1. Institut problem lit'ya AN UkrSSR.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, V.A.

Not a disappearance of social principles but a strengthening of primary organizations. Mashinostroitel' no. 4:40-41 Ap '61.
(MIRA 14:4)

(Technical societies)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

15-57-10-14646

Influence of Rice Field on Water-Salt Balance (Cont.)

flooding appeared at a distance of 200 m. The author describes the rise and fall of ground waters in relation to irrigation and deposited matter. In certain places the inundated land was intersected by deep canals. The water used for flooding the rice paddies seeps down and blends with ground water. Observational data prove that vertical water migration causes the ground water level in adjoining fields to change, but that horizontal migration is virtually nonexistent. Rising ground waters near the rice field cause the upper layer to become very moist. Data on moisture distribution are given. High moisture content creates conditions suitable for capillary rise and salt deposition. Data on salt movement in the soil are given, and are helpful in determining whether the ground will bear a good crop.

Card 2/2 A. Ya. Smirnova

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MALAKHOV V. A.

15-57-10-14646

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, pp 213-214 (USSR)

AUTHORS: Malakhov, V. A., Badenko, I. I.

TITLE: Influence of a Rice Field on Water-Salt Balance of the Ground and the Ground Waters in Adjacent Fields (Vliyaniye risovogo polya na vodnyy i solevoy rezhim pochvy i rezhim gruntovykh vod prilegayusnchikh poley)

PERIODICAL: Tr. Inta vodn. i lesn. kh-va. Kazakhsk. fil. VASKhNIL, 1956, Nr 1, pp 26-49

ABSTRACT: Observations were made for two years in specially located wells to establish the boundaries of negative influence of a rice field on salt content of soil and ground water. Soils and ground waters were sampled when the rice field was flooded (May), while the rice was growing (July), and when the water was drained around the rice paddies during harvest (September--October). When the rice field was flooded, the influence of its

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MALAKHOV, V.A., kuznets; GANAGO, O.A., kandidat tekhnicheskikh nauk, retsenzent; KERAS, A.F., inzhener, redaktor.

[Skill in free forging] masterstvo svobodnoi kovki. Sverdlovsk, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry [Uralo-Sibirskoe otd-nie] 1953. 19 p. (MLRA 7:7)
(Forging)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

SAKHAROV, I.; GNEZDILOV, Yu.; SENNIK, V.; MALAKHOV, V.; SHERMAN, R.N., red.; KUZEMBAYEVA, A., tekhn. red.

[Use of machines and tractors on collective farms]Ekspluatatsiia mashinno-traktornogo parka v kolkhozakh. Alma-Ata, Kazakhskoe gos.izd-vo, 1961. 178 p. (MIRA 16:4)
(Kazakhstan--Agricultural machinery)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

KALISH, Samuil Ionovich; NAYDENKO, Ivan Samoylovich; CHEBANENKO, Konstantin Ivanovich; SUPRUNOV, Vitaliy Fedorovich; CHAYKA, Boris Nikolayevich; PETRAKOV, Aleksandr Ivanovich; DOMANSKIY, Yuzef Gilyar'yevich; MALANKOV, S.V., redaktor.

[Assembly, operation, and repair of hoisiting equipment] Montazh, ekspluatatsiia i naladka pod"emnykh ustanovok. [By] S.I.Kalish i dr. Moskva, Nedra, 1964. 446 p. (MIRA 18:9)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 02459-67 EWT(1)/EWT(m) GW

ACC NR: AT6028960 (N) SOURCE CODE: UR/2566/66/082/000/0056/0071

43

AUTHOR: Karol', I. L.; Krasnopevtsev, Yu. V.; Vilenskiy, V. D.; Malakhov, S. G.

B+1

ORG: none

TITLE: Comparative analysis of the world-wide fallout of nuclear-explosion products over the continents and oceans

19

12

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 82, 1966. Issledovaniya radioaktivnoy zaryaznennosti vod mirovogo okeana (Investigations of radioactive contamination of waters of the oceans), 56-71

TOPIC TAGS: nuclear radiation, strontium [redacted], ocean radioactivity, radioactive fallout, radioactivity, RADIOISOTOPE

ABSTRACT: An attempt at a qualitative and quantitative comparison between the intensities of world-wide radioactive fallout over the oceans and continents was carried out through an estimation of accumulated Sr^{90} at the same latitudes in a unit area of the ocean surface and a unit area of continental surface. The results of direct measurement of radioactive-fallout intensity on the continents and on the islands and the data on the concentration of radioactive fission products in the air above the sea surface and above the surface of dry land were also taken into consideration. On the basis of these data, it is supposed that the intensity of radioactive fallout over the sea surface is greater than over dry land. Orig. art. has: 5 tables and 4 figures.

SUB CODE: 18, 08/ SUBM DATE: none/ ORIG REF: 018/ OTH REF: 010

Card 1/1

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 6477-66
ACCESSION NR: AP5019805

hemisphere in 1959, 1962, and 1963. Latitude distribution of the content of various isotopes in the SSSR soil and the ratio of Ce^{144} + Pr^{144} and Sr^{90} to the total content of fallout in soil are also tabulated. Plots showing the decrease in radioactivity taking place in 1962--1964 are included. The contributions of the various nuclear test explosions to the fallout are estimated. It is concluded that unless new tests are made the average Sr^{90} content in the SSSR soil will be 60--70 microcurie/km^2. Orig. art. has: 4 figures and 5 tables.

ASSOCIATION: none

SUBMITTED: 20Aug64 ENCL: 00 SUB CODE: NP

NR REF SOV: 007 OTHER: 018

nw

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 6477-66 EWT(m)/EWA(h) DM

ACCESSION NR: AP5019805 UR/0089/65/019/001/0028/0035
551.577.7

AUTHOR: Malakhov, S. G.; Sereda, G. A.; Brendakov, V. F.; Polyakova, T. V.; Pervunina, R. I.; Shishcheva, V. I.; Churkin, V. N.

TITLE: Radioactive fallout on the territory of SSSR in 1963

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 28-35

TOPIC TAGS: radioactive fallout, radio strontium, cerium, praseodymium, radioactive decay, radioactive contamination, soil behavior

ABSTRACT: The article contains summary data on the radioactive fission-product fallout and its content in the soil of SSSR during 1963. The fallout was gathered on standard gauze sheets of 0.3 m^2 area for 24 hours, distributed in 10--20 points in each administrative region, oblast, or republic. The ashes resulting from combustion of these sheets were analyzed radiochemically and by γ spectroscopy. The Ce^{144}, Ce^{141}, and Zr^{95} was determined by γ spectrometry with an NaI(Tl) crystal and a pulse-height analyzer. The Sr^{90} was separated radiochemically. Tables are presented, showing the intensity of the radioactive fallout by quarters as a function of the geographic latitude, and averaged over the SSSR territory, and the density of Sr^{90} fallout in SSSR soil compared with other regions of the northern

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[illegible]

[illegible] Number 5 (in Russian, 1.5).

[illegible] Determination of Radioactive Isotopes in Air particles

[illegible]

[illegible] Radioactive Air Particles, Gamma Spectrometer

[illegible] Radioactive Air of ^{141}Ce, ^{103}Ru, and ^{95}Zr + ^{95}Nb in Various Air particles [illegible] the Moscow region in 1962. Several samples collected at one level [illegible] according to their size [illegible]. The content of ^{141}Ce + [illegible] in the measured air is a gamma spectrometer with the order of [illegible] ^{103}Ru and ^{95}Zr + ^{95}Nb not exceeding 20%. The maximum error in determination [illegible] of ^{141}Ce, ^{95}Zr + ^{95}Nb/^{141}Ce + [illegible] was 15% and for ^{95}Zr + [illegible] ^{95}Zr + ^{95}Nb/^{141}Ce + [illegible] was 25%. The calculated data on investigation [illegible]

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[illegible] investigation. The record [illegible] will be published in three volumes in 1965.

[illegible] 5400 [illegible] 1503 [illegible] 85, 05

[illegible] Quarterly [illegible] FAR vol. 1, no. 3

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[illegible] distribution of 200 [illegible] aerosols by size [illegible] of the atmosphere (Ye. [illegible] Gaftyev, L. Ye. Yazarov)

[illegible] Nikiforov, [illegible] Gaftyev, L. Ye. Yazarov) [illegible] significance were those on [illegible] active "hot" particles in [illegible] physical properties, composition, and sizes [illegible] the dispersion of radioactive aerosols from the tro- [illegible] Kh. S. Ts. Khazanov and [illegible] L. Burnasov) [illegible] the part [illegible] atmosphere of radioactive [illegible] Nr. G. Morozov) [illegible] model tests on the dispersion [illegible] aerosols from a point source (N. L. Byzova) [illegible] improved techniques and

[illegible]

[illegible]

[illegible] Radionov and V. D. Spitsin) [illegible] and a proposed [illegible] method investigation [illegible] the papers [illegible] in the [illegible] in 1963.

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The author's report on the global dispersion of radioactive products in the atmosphere resulting from nuclear explosions deals with data obtained in the course of atmospheric radioactive pollution and the impact of this pollution at various points in the world. G. V. Dmitriyeva

II

[illegible] presented analyses of interchange of the rapid transport of radioactive products from the stratosphere into the troposphere. V. L. Karol' and S. G. Malakhova [illegible] number of disposed aerosols were concerned primarily with the [illegible] radioactive particles in the troposphere. Ya. I. [illegible] the transformation of isotopes in the process

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Reports on natural radioactivity included discussions of the vertical distribution of radioactive emanations and their decay products in the troposphere, an evaluation of the coefficient of vertical turbulent mixing based on radon concentration measurements, and a review of available experimental data on the exhalation of radon from the earth's surface. In this context, [illegible] a survey of the dispersion of naturally radioactive Pb^{210} (RaD) aerosol particles was [illegible] in the troposphere. Reports were also made on [illegible] findings on the distribution of Pb^{210} (RaD) in the troposphere, and on the data obtained by I. G. [illegible] in determining the rate of [illegible] on the lower troposphere, the magnitude of the coefficient of vertical turbulent mixing in the troposphere, the stratosphere, and the rate of exchange in the stratosphere between the two hemispheres (on the basis of data of Vinogradov and others).

The discussion of the reports on the global dispersion of radioactive prod-

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

[illegible]

[illegible] Yagodovskiy, A. A.

[illegible] Radioactive [illegible] on nuclear [illegible]

[illegible] Atomnaya energiya, v. 18, no. 1, 1965, 8-[illegible]

[illegible] radioactivity, radioactive [illegible] water plant effect

[illegible] Conference on Nuclear Meteorology held in Obninsk in [illegible] attended by approximately 100, a large number of research [illegible] institutions. More than 70 reports were presented on [illegible] mineral [illegible] the atmosphere's natural radioactivity and [illegible] meteorological research, the global distribution of natural [illegible] in the atmosphere, the activity of radioactive decay products [illegible] as a result of nuclear explosions, the composition [illegible] of radioactive aerosols and gases from localized sources [illegible] washout from the atmosphere, and research methods [illegible] used in nuclear meteorology.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 1683-66

ACCESSION NR: AP5017632

apparently are more complex in their relationship. Other factors affecting the results are particle size and distribution differences for large and small particles. In global fallout beta-radioactivity of the most active particles is 10^{-9} to 10^{-8} curie and the minimum determinable activity is 1.10^{-13} curie. On the basis of various estimates, maximum particle size is 20 microns but particles are usually much smaller. Difference in hot particle composition compared to isotope composition of an aerosol sample (isotope fractionation) is discussed. The estimated doses for producing carcinogenic effects on lungs, established experimentally by various authors, coincide and the estimated developmental period is 10-30 yrs. Dust particles capable of producing microscope necroses in the respiratory organs should be subject to control. Health, geophysical, and biological aspects of hot particles require further study. Orig. art. has: 2 tables.

ASSOCIATION: None

SUBMITTED: 30Sep64 ENCL: 00 SUB CODE: NP, LS

NR REF SOV: 025 OTHER: 040

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 1683-66

ACCESSION NR: AP5017632 UR/0240/65/000/007/0087/0097

614.73

AUTHOR: Bykhovskiy, A. V.; Malakhov, S. G. 44,55

TITLE: Hot particles in air (literature survey) 44,55 32 B

SOURCE: Gigiyena i sanitariya, no. 7, 1965, 87-97

TOPIC TAGS: fission product, radioactivity measurement, radioactive fallout 19,44,55

ABSTRACT: The problem of hot particles in the air is discussed in terms of radioactivity measurement, radioactivity distribution and concentration of fallout particles, particle size, particle isotope composition, and biological effects of hot particles. The role of autoradiography in measuring radioactivity distribution of individual fallout dust particles is described. A list of authors contributing to the detection of hot particles in air is given. Also, a table summarizing the results of hot particle measurements in different parts of the world is given and the considerable differences in results are discussed. Radioactivity concentrations of fission products and hot particles are not directly proportional, and

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KAROL', I.L., red.; KIRICHENKO, L.V., red.; KRASNOPEVTSEV, Yu.V., red.; KURGANSKAYA, V.M., red.; MALAKHOV, S.G., red.; SEREDA, G.A., red.; YAGODOVSKIY, I.V., red.; KALYUZHNAYA, T.P., red.

[Radioactive isotopes in the atmosphere and their use in meteorology; reports] Radioaktivnye izotopy v atmosfere i ikh ispol'zovanie v meteorologii; doklady. Moskva, Atomizdat, 1965. 491 p. (MIRA 18:7)

1. Nauchnaya konferentsiya po yadernoy meteorologii, 2d, Obninsk, 1964.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 2653-66

ACCESSION NR: AT5023941

ASSOCIATION: none

SUBMITTED: 28Apr65

ENCL: 00

SUB CODE: ES, NP

NO REF SOV: 045

OTHER: 074

ATD PRESS: 4101

Card 3/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 2653-66

ACCESSION NR: AT5023941

3) their dispersion from the lower stratsophere, 4) transfer of these radioactive products through the tropopause and estimation of the average time they remain in the stratosphere, 5) dispersion of these products from the stratosphere into the troposphere and their fallout on the underlying surface, and 6) removal of radioactive aerosols from the lower troposphere. The authors recommend concentrating future research in this area as follows: 1) quantitative research on the nature of nuclear-explosion products in the atmosphere (mainly in the stratosphere and tropopause) and related atmospheric processes using additional tracers, such as natural radioactive aerosols, ozone, C^{14}, CO^2, tritium, water vapor, etc.; 2) studies of the relationship between various meteorological processes originating in the troposphere and fallout on earth (baric formations, interlatitudinal exchange and seasonal changes, meridional circulation and their fluctuations, precipitation, and the frequencies of occurrence of all of these parameters); 3) studies of the dispersion states of aerosol-carriers of radioactive products of nuclear explosions and their effects on the general dispersion patterns in the atmosphere (formation, coagulation, fractionation, and separation of individual radioactive isotopes); and 4) studies of the processes of cleansing the lower troposphere of radioactive aerosols. Orig. art. has: 13 figures, 6 formulas, and 4 tables. [ER]

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L 2653-66 EWT(1)/EWT(m)/FCC/EWA(h) GS/GW

ACCESSION NR: AT5023941 UR/0000/65/000/000/0244/0282

AUTHOR: Karol', I. L.; Malakhov, S. G.
44,55 44,55

33 B+1

TITLE: Global distribution in the atmosphere and the fallout of the radioactive products of nuclear explosions 19

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk, 1964. 44,55 Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v meteorologii (Radioactive isotopes in the atmosphere and their use in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965, 244-282

TOPIC TAGS: nuclear meteorology, 12,44,55 atmospheric pollution, radioactive fallout, radioactive aerosol, radioactive tracer, atmospheric pollutant dispersion, nuclear fission product, global pollutant distribution

ABSTRACT: The purpose of this paper is to collect and systematize the results of research on the global distribution in the atmosphere and the fallout on the earth's surface of the radioactive products of nuclear explosions, recently published (1957-1965) in the world literature. Data are summarized and referenced to the literature (119 references) under the following topics: 1) primary parameters of nuclear explosions determining the global distribution of radioactive products in the atmosphere, 2) dispersion of these radioactive products from the upper atmosphere,

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 2652-66
ACCESSION NR: AT5023940

urements were averaged for different periods of time (by day, month, and year) and compared with results obtained by non-Soviet scientists. Orig. art. has: 5 figures, 4 formulas, and 2 tables. [ER]

ASSOCIATION: none

SUBMITTED: 28Apr65 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 007 OTHER: 007 ATD PRESS: 4101

Card 2/2

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 2652-66 EWT(1)/EWT(m)/FCC/EWA(h) GS/GW

ACCESSION NR: AT5023940 UR/0000/65/000/000/0230/0243

AUTHOR: Makhon'ko, K. P.; Malakhov, S. G.; Nekhorosheva, M. P.

TITLE: Washout of fission products from the atmosphere

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk, 1964. Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v meteorologii (Radioactive isotopes in the atmosphere and their use in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965, 230-243

TOPIC TAGS: nuclear meteorology, atmospheric pollution, radioactive fallout, radioactive particle washout, radioactive aerosol, hot particle, nuclear fission product

ABSTRACT: Regular daily observations of the amount, intensity, direction, and types of precipitation were made simultaneously with measurements of the specific radioactivity of precipitation C in the period 1960—1962 (immediately after nuclear testing and during the moratorium) to determine the relationship of C to the above precipitation parameters and to the concentration of radioactive materials q in atmospheric air, and of the dependence of C on the amount of precipitation h. Meas-

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 3105-66

ACCESSION NR: AT5023937

ASSOCIATION: none

SUBMITTED: 28Apr65

NO REF SOV: 008

ENCL: 00

OTHER: 009

SUB CODE: ES, NP

ATD PRESS: 4101

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Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

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L 3105-66 EWT(1)/EWT(m)/FCC/EWA(h) GS/GW

ACCESSION NR: AT5023937 UR/0000/65/000/000/0193/0206

AUTHOR: Makhon'ko, K. P.; Malakhov, S. G.

TITLE: Results of systematic observations of hot particles in the surface boundary layer of the atmosphere in the Moscow region from 1961 through 1963

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk, 1964. Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v meteorologii (Radioactive isotopes in the atmosphere and their use in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965, 193-206

TOPIC TAGS: nuclear meteorology, atmospheric pollution, radioactive aerosol, hot particle, atmospheric boundary layer, nuclear fission product

ABSTRACT: This paper presents the results of systematic observations of hot aerosol particles measured in the surface boundary layer of the atmosphere over the Moscow region for the period from September 1961 to December 1963 (hot particles are defined as having a radioactivity of $A > 10^{-10}$ cu and 5.10^{-12} cu). Descriptions are given of the methods of measurement. The ratios of hot particles to fission-product concentrations, the sizes of the hot particles, and hot-particle washout by precipitation are calculated and reported. Orig. art. has: 6 figures and 5 tables. [ER]

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L 3099-66

ACCESSION NR: AT5023931

0

tation and techniques are described, and the USSR data are compared with similar data for areas in Greenland, Canada, and Alaska. Orig. art. has: 5 figures and 3 tables. [ER]

ASSOCIATION: none

SUBMITTED: 28Apr65 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 010 OTHER: 010 ATD PRESS: 4101

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 3099-66 EWT(1)/EWT(m)/FCC DIAAP GS/GW

ACCESSION NR: AT5023931 UR/0000/65/000/000/0120/0131

AUTHOR: Vilenskiy, V. D.; Davydov, Ye. N.; Malakhov, S. G.
44,55 44,55 44,55

40
B+1

TITLE: Seasonal and geographical changes in the Pb^{210} content of the atmosphere

79

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk, 1964. Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v meteorologii (Radioactive isotopes in the atmosphere and their use in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965, 120-131

44,55

TOPIC TAGS: nuclear meteorology, radioactive aerosol, radioactive isotope, radioactive tracer, radioactive contaminant, atmospheric boundary layer

ABSTRACT: Systematic measurements made over a two-year period (1959-1960) of the concentration of radon and Pb^{210} in the surface boundary layer of the atmosphere over the Moscow region and on Kheys Island (Franz Josef Land) were used as the basic materials in a study of the interlatitudinal exchange of air masses in the polar and middle latitudes of the Northern Hemisphere. Measurements of the Sr^{90}/Pb^{210} ratios made it possible to study the influx of Pb^{210} and Sr^{90} into the atmosphere of the polar regions. In addition, an evaluation was made of the seasonal changes in the rate of purification of the Pb^{210} aerosol-carrier. Instrumen-

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L 3223-66

ACCESSION NR: AT5023927

to make a comparison with measurements of decay products in the troposphere. Orig. art. has: 9 formulas, 3 figures, and 2 tables. [ER]

ASSOCIATION: none

SUBMITTED: 28Apr65 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 007 OTHER: 005 ATD PRESS: 4101

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 3223-66 EWT(1)/EWT(m)/FCC/EWA(h) GS/GW

ACCESSION NR: AT5023127 UR/0000/65/000/000/0081/0092

AUTHOR: Malakhov, S. G.; Chernysheva, P. G.

TITLE: Seasonal changes in radon and thorium concentration in the surface boundary layer of the atmosphere

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk, 1964. Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v meteorologii (Radioactive isotopes in the atmosphere and their use in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965, 81-92

TOPIC TAGS: nuclear meteorology, micrometeorology, radioactive aerosol, radioactive isotope, radioactive tracer, radioactive pollution, atmospheric pollution, radon exhalation, thorium exhalation, atmospheric boundary layer, troposphere

ABSTRACT: The techniques, procedures, and calculations used to determine the concentrations of thorium and radon decay products present in the atmosphere over the Moscow area from 1959 through 1961 are described. Results of these determinations are compared with the amounts of seasonal and daily radon exhalation from the soil measured in the surface boundary layer of the atmosphere. An attempt is also made

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L 3225-66

ACCESSION NR: AT5023924

a surface boundary layer inversion. The effect of vertical turbulent mixing on the concentration of radon in the surface boundary layer was determined to be of major significance. Orig. art. has: 2 figures, 4 formulas, and 3 tables. [ER]

ASSOCIATION: none

SUBMITTED: 28Apr65 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 011 OTHER: 002 ATD PRESS: 4101

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 3225-66 EWT(1)/EWT(m)/FCC/EWA(h) GS/GW UR/0000/65/000/000/0047/0056 44
ACCESSION NR: AT5023924 B+1

AUTHOR: Milin, V. B. (Deceased); Malakhov, S. G.; Zorina, K. I.; Sisigina, T. I.
44,55 44,55 44,55 44,55

TITLE: Radon concentration and vertical turbulent mixing in the surface boundary layer of the atmosphere

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk, 1964. Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v meteorologii (Radioactive isotopes in the atmosphere and their use in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965, 47-56

TOPIC TAGS: nuclear meteorology, micrometeorology, atmospheric boundary layer, radioactive aerosol, radioactive isotope, atmospheric turbulence, radon exhalation, radioactive tracer

ABSTRACT: The results are described of an analysis of simultaneous measurements of radon concentration in the surface boundary layer of the atmosphere (low-temperature radon-concentration determination using liquid nitrogen and the activated carbon-absorption method) and in the soil, the amount of radon exhaled from the surface, and the coefficient of vertical turbulent mixing. Two series of measurements were made — one 7 km south of Kirov in the summer of 1950 mainly under convective conditions, and the second in the Moscow region in the summer of 1962 with

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DMITRIYEVA, G. V.; KRASNOPEVTSEV, ~~V.~~ Yu. V.; LUKYANOV, V. V.; MALAKHOV, S. G.

"Investigation of the radioactive aerosol distribution over oceans and some problems of latitudinal exchange in the tropical zone."

report presented at the meeting of the Comm on Atmospheric Chemistry and Radioactivity of the Intl Assn of Meteorology and Atmospheric Physics, Visby, Sweden, 18-25 August 1965.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, S.G.; DMITRIYEVA, G. V.; KIRICHENKO, L. V.; SISIGINA, T. I.

"Diurnal variations of radon and thoron decay product concentration in the surface layer of the atmosphere and their washout by precipitation."

paper to be presented at Symp on Atmospheric Chemistry, Circulation and Aerosols, Visby, Sweden, 18-25 Aug 1965.

Hydrometeorological Service USSR.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, S.G.

Graphic method of analyzing the radioactive decay of a mixture of parent and daughter isotopes. Atom. energ. 17 no.3:226 S '64. (MIRA 17:9)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

ACCESSION NR: AP4041455

ENCLOSURE: 01

Month	a Концентрация горячих частиц в 10^3 м³				Доля активности на частицах $A > 5 \cdot 10^{-12}$ стицо
	всех частиц b	$5 \cdot 10^{-12} \leq A < 10^{-11}$	$10^{-11} < A < 10^{-10}$	$10^{-10} \leq A$	c
1961					
Sep(20-30)	70	—	—	—	7,
Oct	20	18,7	0,0	0,4	6,
Nov	10	9,4	0,5	0,1	5,
Dec	18,6	18,1	0,4	0,09	5,
1962					
Jan	24,0	24,5	0,4	—	4,
Feb	11,4	11,3	0,14	—	2,
Mar*	8,3	8,2	0,08	—	1,
May	5,5	5,3	0,2	—	1
Jun	4,1	3,9	0,06	0,06	1
Jul	3,3	2,7	0,4	0,2	2
Aug	7,2	6,2	0,7	0,3	4,
Sep	51,2	45,2	0,0	2,5	20
Oct	46,4	44,1	2,3	1,5	23
Nov	61,3	56,8	5,0	2,2	5
Dec	78,7	68,7	10,0	0,8	20

Legend:

a - hot-particle concentration, in 1000 m^3

b - all particles

c - fraction of activity in particles with $A > 5 \cdot 10^{-12}$ Cu/particle, %

* No measurements in April

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ACCESSION NR: AP4041455

particles. The gamma-ray spectrum of some of the most active hot particles was also measured, and found to agree with earlier data by the authors (Atomnaya energiya v. 15, 238, 1963). It is concluded that systematic registration of hot particles is essential in order to estimate their potential radiation danger. Orig. art. has: 3 tables and 1 figure.

ASSOCIATION: None

SUBMITTED: 08Jul63 ENCL: 01

SUB CODE: CB, NP NR REF SOV: 003 OTHER: 002

Card 3/4

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

ACCESSION NR: AP4041455

the half-life of the remainder of the corresponding sample. The average value was 30--40 days, and in seven out of nine cases the half-lives of the hot active particles were shorter than the half-lives of the total samples. Other quantities estimated were the fraction of atmospheric radioactivity of the fission particles carried by particles with activity $>5 \times 10^{-12}$ Curie/particle, and the dependence of the concentration of the radioactive fission products in the atmosphere on the counted concentration of the hot particles, which was found to be proportional to $n^{1/6}$ (n -- counted concentration). The dependence was calculated for the time between nuclear tests and the periods of the nuclear tests themselves. The chronological maximum of the concentration (q) of the radioactive fission products was found to have a maximum about 10--14 days ahead of the maximum of the hot-particle concentration. The correlation between q and n was found to be much stronger during the period of nuclear tests, thus evidencing that the hot particles have in the atmosphere a different behavior than the bulk of the smaller fission-product

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

ACCESSION NR: AP4041455 S/0089/64/016/006/0530/0533

AUTHORS: Malakhov, S. G.; Makhon'ko, K. P.

TITLE: Hot aerosol particles in the vicinity of Moscow near the earth's surface

SOURCE: Atomnaya energiya, v. 16, no. 6, 1964, 530-533

TOPIC TAGS: aerosol, fallout, alpha contamination, gamma spectrum, half life, nuclear weapons test

ABSTRACT: Results are reported of systematic measurements of the concentration of hot aerosol particles at the earth's surface, made near Moscow from September 1961 through December 1962. A combined photographic and autoradiographic technique was used to count the particles and to estimate their activities. The bulk of the particles had an activity on the order of 10^{-12} Curie/particle. The half-lives of the most active particles were determined and compared with

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KAROL', I. L.; MALAKHOV, S. G.; KIKOIN, I. K.

"Use of isotopes for quantitative investigation of atmosphere movement."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva, 31 Aug-9 Sep 64.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, S.G.; MAKHON'KO, K.P.

Hot aerosols in the atmosphere. Atom. energ. 15 no.3:238-245 S '63. (MIRA 16:10)

(Aerosols)

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with a great degree of accuracy. This again made it possible to use radioactive isotopes in various fields of science, including meteorology. Tests of nuclear arms and the dispersion into the atmosphere of the waste of atomic industry necessitated a thorough investigation of the patterns of the spread of aerosols and gases, sometimes throughout almost the entire atmosphere. Such investigation is connected with the wide use of the newest methods and results of meteorology and the physics of the atmosphere in general. On the other hand, the distribution in the atmosphere of air masses, labeled with radioactive atoms, gives the meteorologists a new method for the study of atmospheric processes. The entire complex of problems related to the study of the distribution of radioactive impurities in the atmosphere and the use of radioactive atoms as labels in air masses or clouds has lately received the name of "nuclear meteorology" and is regarded as a branch of the physics of the atmosphere. The present collection contains some general articles, as well as articles reporting on the results of special investigations of certain problems of nuclear meteorology conducted in 1960-1961. It is divided in three sections, each dealing with a certain type of problem of nuclear meteorology. Bibliographic references are included at the end of individual articles.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

Malakhov, S.G.

JUN 25 1963

PHASE I BOOK EXPLOITATION SOV/6277

Karol', I. L., and S. G. Malakhov, Candidates of Physics and Mathematics, eds.

Voprosy yadernoy meteorologii; sbornik statey (Problems in Nuclear Meteorology; a Collection of Articles) Moscow, Gosatomizdat, 1962. 271 p. Errata slip inserted. 2600 copies printed.

Ed.: A. I. Zavodchikova; Tech. Ed.: Ye. I. Mazel'.

PURPOSE: The book is intended for meteorologists and physicists specializing in the physics of the atmosphere. It may also be of interest to oceanographers concerned with the contamination of seas and oceans with radioactive waste products.

COVERAGE: This is a collection of 15 articles dealing with various problems of nuclear meteorology. The rapid development of the methods of radiometry opened the possibility of measuring minute particles of radioactive substances

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, S.G.; KOVDA, A.V.

Ratio between the concentration of radon and its decay products in the air. Izv.AN SSSR.Ser.geofiz. no.5:789-792 My '61.
(MIRA 14:4)

1. Akademiya nauk SSSR, Institut prikladnoy geofiziki.
(Radio meterology)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, S.G.; SOLODIKHINA, L.D.

Natural radioactivity of the air and precipitation in the region of the Norwegian Sea. Izv. AN SSSR. Ser. geofiz. no.4:620-624 Ap '61. (MIRA 14:3)

1. Institut prikladnoy geofiziki AN SSSR.
(Atomic energy and meteorology)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

66575

SOV/49-59-9-5/25

Vertical Distribution of Radioactive Emanations in the Atmosphere

the concentration of Rn and Tn as a function of altitude. The ratio of the concentrations of radioactive emanations in the soil and air is determined theoretically and a relation is obtained between the exhalation of emanations from the soil and their concentration in air. In both cases good agreement with experiment is obtained. There are 1 figure, 3 tables and 24 references, 6 of which are Soviet (1 translation from English), 14 German and 4 English.

ASSOCIATION: Akademiya nauk SSSR, Institut prikladnoy geofiziki (AS USSR, Institute of Applied Geophysics)

SUBMITTED: September 1, 1958

4

Card 3/3

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

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SOV/49-59-9-5/25

Vertical Distribution of Radioactive Emanations in the Atmosphere

solutions obtained by Hess and Schmidt in Ref 2 and Schmidt in Ref 3) have certain shortcomings. In particular, it is difficult to use them in practice in studies of the concentration of radioactive emanations in the atmosphere in relation to the concentration of the substances in the soil or the magnitude of their exhalation from the Earth. It is suggested that, so far, there is no satisfactory theoretical solution for the vertical distribution of the concentration of radioactive emanations in the case when the turbulence coefficient varies with altitude. The turbulence coefficient k enters into the diffusion equation given by Eq (1). In the present work it is assumed that the turbulence coefficient k varies linearly with height and, in addition, the atmosphere is split into two layers so that the coefficients in the linear relations for k are different in the two layers. The diffusion equation (in the form given by Eq (1)) is then solved for these two layers and the vertical distribution of the radioactive emanations in the atmosphere are obtained. The theoretical curves are in good agreement with experimental data. Table 1 gives

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66575

3.9000

SOV/49-59-9-5/25

AUTHOR: Malakhov, S. G

TITLE: Vertical Distribution of Radioactive Emanations in the Atmosphere

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 9, pp 1344-1352 (USSR)

ABSTRACT: The natural radioactivity of the atmosphere is associated mainly with the upper layers of the Earth. Gaseous radioactive emanations Rn and Tn, which are disintegration products of radioactive elements in the soil, continuously enter the soil capillaries and diffuse towards the Earth's surface. Owing to the presence of strong turbulent exchange they are carried up to altitudes of the order of 10 km or more (Ref 1). One of the interesting problems in this connection is the vertical distribution of radioactive emanations in the atmosphere as a function of turbulent intermixing in it and the relation between the concentration of emanations in the soil and air (Refs 2-5). In the work done so far (Refs 1-5), the diffusion equation for radioactive gas is solved under certain assumptions (stationary state, i.e. $\partial s/\partial t = 0$, infinite and plane underlying surface; cf. Eq (1)). All the solutions (e.g. the

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MALAKHOV, S. G.

Meteorology

Dissertation: "Electrical Conductivity of the Atmosphere and Turbulence in the Lowest Atmospheric Layer." Cand Phys-Math Sci, Geophysics Inst, Acad Sci USSR, 31 Mar 54. (Vechernyaya Moskva Moscow 18 Mar 54)

SO: SUM 213, 20 Sep 1954

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, S. G.

258T89

USSR/Geophysics - Atmospheric Turbulence May/Jun 53

"Conductivity of Air and Turbulent Mixing in the Atmosphere," V. B. Milin and S. G. Malakhov, Kirov State Ped Inst im Lenin

Iz Ak Nauk SSSR, Ser Geofiz, No 3, pp 264-270

Expound theoretical relation between air conductivity and turbulent mixing in the atmosphere. Establish theoretically the dependence between the ratio λ/k and the state of the electrical field, which is characterized by the ratio of the

258T89

potential gradient differences according to observations at three heights. Adduce results of observations on correlation of conductivity λ and turbulence coefficient k. Find these observations agree with the obtained theoretical solns.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 08905-67

ACC NR: AP6002209

0.1 N solution of Ce ammonium nitrate in 1 N HNO_3, thermostated at the same temperature, was poured into the mixture. The reaction was stopped by the addition of hydroquinone. The mixture was then poured into acetone, taken in 20-30-fold excess amount, and, after precipitation, filtered out and dried. The composition of the graft copolymer was determined from the saponification number. A complete conversion of the monomer occurred at the end of 1 hr at 20C and under the following conditions: concentration of 5.0×10^{-2} mole/l Ce^{4+}, 0.5575 mole/l methylacrylate, 0.1 mole/l HNO_3, and 5% polyvinyl alcohol. The copolymer contained 50.3% polyvinyl alcohol and 49.7% polymethylacrylate. The amount of graft polyvinyl alcohol copolymer increased with increased concentration of Ce^{4+} regardless of temperature (5, 10, and 20C) and the duration of the reaction (2 and 1 hr). An increase in the temperature and in the amount of methylacrylate increased the rate of graft copolymerization, but the amount of graft copolymer depended very little on the acid concentration. The properties of synthesized graft copolymers will be discussed in the next paper. Orig. art. has: 2 fig. and 3 tables.

SUB CODE: 07/ SUBM DATE: 16Nov63/ ORIG REF: 002/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 08905-67 EWT(m)/EWP(j) IJP(c) WW/RM

ACC NR: AP6002209 (A) SOURCE CODE: UR/0153/65/008/005/0825/0828

AUTHOR: Morozov, V. A.; Sharova, V. V.; Livshits, R. M.; Malakhov, R. A; Rogovin, Z. A.

ORG: Moscow Textile Institute, Department of Chemical Fibers (Moskovskiy tekstil'nyy institut, Kafedra khimicheskikh volokon)

TITLE: Synthesis of graft copolymers of polyvinyl alcohol and methylacrylate in the presence of tetravalent cerium salts

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 8, no. 5, 1965, 825-828

TOPIC TAGS: graft copolymer, polyvinyl alcohol, cerium compound, hydroquinone, acetone

ABSTRACT: The synthesis of graft polyvinyl alcohol copolymers is based on the fact that the oxidation of hydroxyl-containing polymers by Ce^{4+} passes through the formation of free macroradicals capable of initiating the graft copolymerization of monomers contacting vinyl. To avoid the formation of homopolymers, the synthesis time selected was smaller than the induction period of monomer homopolymerization. Polyvinyl alcohol, completely soluble in water, was used in the experiments. The necessary amount of monomer was poured into an aqueous solution of polyvinyl alcohol, and a homogeneous solution or emulsion of methylacrylate was obtained, after shaking, at monomer concentration > 0.446 mole/l. The mixture was thermostated at a definite temperature and

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MALAKHOV, R.A.; DUBINA, V.P.; CHOY GO-LYAN [Ch'ui Kuo-liang]

Sorption capacity of cellulose nitrates as dependent on the conditions of their preparation. Vysokom. soed. 6 no.6 :1072-1077 Je '64 (MIRA 18:2)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

ANDREYEV, P.A.; KRESHKOV, A.P.; GURETSKIY, I.Ya.; MALAKHOV, R.A.

Certain properties of lacquer films based on cellulose nitrates modified by organosilicon compounds. Lakokras.mat. i ikh prim. no.1:13-17 '60. (MIRA 14:4)

(Films (Chemistry)) (Nitrocellulose)
(Silicon organic compounds)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

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MALAKHOV, P.Ye.; MOLOTOK, A.V.; DMITRIYEV, A.I.; GORBATENKO, A.I.; IONOVA, Ye.P.; BARANOV, B.A., inzh., red.; DOBRITSYNA, R.I., tekhn. red.

[General time norsm used in machinery manufacturing for establishing machine-work norms in woodworking shops; mass, large lot, andlot production] Obshchemashinostroitel'nye normativy vremeni dlia normirovaniia stanochnykh rabot v derevoobrabatyvaiushchikh tsekhakh; massovoe, krupnoseriinoe i seriinoe proizvodstvo. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 78 p. (MIRA 14:10)

1. Moscow. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Nauchno-issledovatel'skiy institut tekhnologii traktornogo i sel'skokhozyaystvennogo mashinostroyeniya (for Malakhov, Molotok, Dmitriyev, Gorbatenko, Ionova).
(Machinery industry) (Woodworking)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MOLOTOK, A.V.; DMITRIYEV, A.I.; GORBATENKO, A.I.; SHAROYAN-SARINGULYAN, G.P.; MALAKHOV, P.Ye.; KRIVOUKHOV, V.A., doktor tekhn.nauk, red.; GRANOVSKIY, G.I., prof., doktor tekhn.nauk, red.; TRET'YAKOV, I.P., prof., doktor tekhn.nauk, red.; ALEKSEYEV, S.A., dotsent, red.; MALOV, A.N., dotsent, kand.tekhn.nauk, red.; SHAKHNAZAROV, M.M., dotsent, red.; VOL'SKIY, V.S., red.; GAL'TSOV, A.D., red.; KABANOV, N.Ya., red.; TOLCHENOV, T.V., red.; KHARITONOV, A.B., red.; KHISIN, R.I., red.; SHOR, M.I., red.; SEMENOVA, M.M., red. izd-va; EL'KIND, V.D., tekhn.red.

[Time norms in general machinery manufacturing for applying coats of lacquer; large, medium, and small scale production] Obshchemashinostroitel'nye normativy vremeni na lakokrasochnye pokrytiia; krupnoseriinoe, seriinoe i melkoseriinoe proizvodstvo. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 83 p. (MIRA 12:6)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'noye byuro promyshlennykh normativov po trudu. 2. Rabotniki otdela trudovykh normativov Nauchno-issledovatel'skogo instituta traktorosel'khozmasha (for Molotok, Dmitriyev, Gorbatenko, Sharoyan-Saringulyan, Malakhov).

(Painting, Industrial) (Machinery industry)

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MALAKHOV, P.N. , kand. tekhn. nauk;BOKANOV, M.V., inzh.

Starting a synchronous motor with rigidly connected exciter by means of manually operated VMG oil circuit breakers. Izv. vys. ucheb. zav.; energ. no. 1:65-72 Ja '58. (MIRA 11:7)

1. Bryanskiy institut transportnogo mashinostroyeniya.
(Electric motors, Synchronous)
(Electric circuit breakers)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, P.N.

USSR/ Engineering - Metal cutting

Card 1/1 Pub. 128 - 6/25

Authors : Malakhov, P. N., Cand. Tech. Sc.

Title : Automatic control of the cutting speed in relation to the temperature of the cutting tool edge

Periodical : Vest. mash. 35/4, 26-30, Apr 1955

Abstract : It is explained that the temperature originating on the edge of the cutting tool is the most important factor which predetermines the serviceability of the tool up to the point of dullness. It is shown that the cutting speed can be controlled by a device which alters the cutting rate in relation to the hardness (cast iron) or tensile strength (steel). A newly designed electric automat for controlling speed of machines relative to the temperature of the cutting tool edge is described. Two USSR references (1933-1937). Table; graphs; diagram; illustration.

Institution : .....

Submitted : .....

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L 27591-66

ACC NR: AP6018403

experiments showed that the same dose of two neurotropic poisons (Bungarus and Naja) affects the heart differently. A lower concentration of Bungarus venom was found to have little influence on cardiac action. It resulted only in slight temporary compensation in response to the changes induced. Orig. art. has: 4 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: 08Feb64 / ORIG REF: 003 / OTH REF: 001

Card 2/2

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

L 27591-66 EWT(1) RO

ACC NR: AP6018403 SOURCE CODE: UR/0020/65/162/001/0225/0228

30
B

AUTHOR: Pavlovskiy, Ye. N. (Academician); Val'tseva, I. A.; Malakhov, O. A.; Seyfullina, I. N.; Talyzin, V. P.

ORG: First Moscow Medical Institute im. I. M. Sechenov (Pervyy Moskovskiy meditsinskiy institut); Institute of Zoology, AN SSSR (Zoologicheskiy institut AN SSSR)

TITLE: Comparison of the effects produced by venom from Bungarus fasciatus, Naja tripudians, and Vipera lebetina in the isolated frog heart

SOURCE: AN SSSR. Doklady, v. 162, no. 1, 1965, 225-228

TOPIC TAGS: poison, toxicology, pharmacology, cardiovascular system, experiment animal

ABSTRACT: The three kinds of venom applied to the isolated frog heart in the same dose ($1 \cdot 10^{-2}$) had different effects. That of Bungarus disrupted the relaxation phase of the working heart, but left the contraction phase unaffected. The ventricles came to a standstill during systole. The cobra venom primarily impaired the contractions of the heart, but had less effect on the relaxation phase. Both neurotropic poisons (Bungarus fasciatus and Naja tripudians) in the aforementioned dose sharply inhibited cardiac action. The effect was irreversible and fatal. The viper venom, which has hemorrhagic action, quickly inhibited cardiac action. However, unlike the other two, it could be washed out with Ringer's solution, after which the cardiac action soon returned to normal. The

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KUSHKO, V.M.; MALAKHOV, N.Ye.; KONYSHEV, V.A.

Comparative data on the effect on the organism of the intermittent and continuous action of a hemostatic tourinquet. Khirurgiia 36 no.9:115-118 S '60. (MIRA 13:11)

1. Iz kafedry biokhimii (zav. - prof. B.M. Kushko) II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni N.I. Pirogova.
(ANEMIA) (LEG--BLOOD SUPPLY)

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MALAKHOV, N.V. (Gorno-Altaysk)

Teaching how to fill in a map in school geography lessons. Geog. v shkole 26 no.2:47-52 Mr-Ap '63. (MIRA 16:4)

(Maps—Symbols)

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MALAKHOV, N.V. (Gorno-Altaysk)

Coordination of school courses of mathematics and geography.
Mat. v shkole no.5:40-42 S-O '63. (MIRA 16:11)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, N.V. (g.Gorno-Altaysk)

Changeable map of a local province. Geog. v shkole 25 no.5:62-63 S-O '62. (MIRA 15:9)

(Geography--Maps)

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700024-6

MALAKHOV, N.V. (g. Gorno-Altaysk)

Drawing conventional signs on contour maps. Geog. v shkole 25 no.3:52-53 My-Je '62. (MIRA 15:7)
(Topographical drawing--Conventional signs)

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